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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/184,878 | 11/03/1998 | MASUO OHNISHI | 981331 | 4776 |

23850 7590 07/21/2003

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EXAMINER

CHANG, YEAN HSI

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/184,878

Applicant(s)

OHNISHI ET AL.

Examiner

Yean-Hsi Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-13,14/10,14/12,15/10,15/12,16/10,16/12,17/10,17/12,22-29 and 31/22 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 29.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Continuation of Disposition of Claims: Claims rejected are 1,2,4-6,7/5,7/6,8/5,8/6/9/5,9/6,14/1,14/4,14/5,14/6,15/1,15/4,15/5,15/6,16/1,16/4,16/5,16/6,17/1,17/4,17/5,17/6,18-21,30/5,30/6, and 31/21.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 29 June 2001 for amendment has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5, 6, 7/5, 7/6, 8/5, 8/6, 9/5, 9/6, 15/5, 15/6, 20, 21, 30/5, 30/6 and 31/21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hager et al. (US 5,463,527).

Hager teaches a disk drive vibration and shock isolation system including: a disk unit (12, fig. 4), a plurality of small vibration/shock absorbing members (64 and 68, fig. 4) between said disk unit and the bottom and side surfaces of a disk unit accommodating part (14, fig. 4), and being inside a housing (see col. 2, line 61); wherein said members are composed of various types of materials with differing vibration/shock absorbing characteristics (see col. 4, lines 3-4; and col. 5, lines 40-42). Note that shock absorbing members 68 secured to disk unit 12 via tang 40, for example, places the member between the side of the disk and the side of the disk accommodating part (shown in fig. 4).

Regarding claim 15, Hager teaches that the vibration/shock absorbing members are adhered to a member confronting the disk unit (see col. 5, line 39).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4, 14/1, 14/4, 14/5, 14/6, 15/1, 15/4, 16/1, 16/4, 16/5, 16/6, 17/1, 17/4, 17/5, 17/6, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varghese et al. (US 5,673,171) in view of Genix et al. (US 6,021,041).

Regarding claims 1-2, 4 and 17-18, Varghese teaches a hard disk drive support apparatus (60, fig. 2) including: a plurality of vibration/shock absorbing members (70, fig. 4) between a disk unit (10, fig. 4) and a lid member (38, fig. 4) which covers a disk unit accommodating part (78, fig. 4) provided in a housing (12, fig. 1); and a sheet member (62, fig. 4) provided between said disk unit and said vibration/shock absorbing members.

Regarding claim 14, the invention of Varghese et al. also depicts that the vibration/shock absorbing members are between the disk and an inner top surface of the disk unit accommodating part (figs. 3 and 4).

Regarding claim 16, the invention of Varghese et al. is a portable electronic apparatus.

Regarding claim 19, Varghese et al. alternately shows a disk drive accommodating part 78, a lid member 38 and a vibration/shock absorbing member 60 formed by a plurality of small pieces 70, and a sheet member 62.

What Varghese et al. does not teach is that the sheet member between the disk unit and the vibration/shock absorbing member being electrically insulative.

The computer system with shock absorbing members of Genix et al. includes an electrically inherently insulative sheet 22 between the disk unit 18 and the vibration/shock absorbing member 20. PC boards are inherently electrically insulative by definition. See, for example, Microsoft Press Computer Dictionary which states that a printed circuit board is "a flat board made of nonconducting material, such as plastic or

fiberglass, on which chips and other electronic components are mounted" (emphasis added).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the device of Genix et al. with the device of varghese et al. to effect the claimed invention, especially in light of the express teaching of both references to provide shock and vibration isolation for computer disk drives, as well as the notoriously conventional nature of the kind of insulative sheets typified in the invention of Genix et al. Moreover, the design in Genix et al. expressly contemplates the work of Varghese et al., as the former cites the latter.

Allowable Subject Matter

6. Claims 10-13, 14/10, 14/12, 15/10, 15/12, 16/10, 16/12, 17/10, 17/12, 22-29 and 31/22 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record, Hager et al. (US 5,463,527), Varghese et al. (US 5,673,171), and Genix et al. (US 6,021,041), taken alone or in combination, fails to teach or reasonably suggest: a plurality of vibration and/or shock absorbing members in electronic apparatus mounted with a disk drive, having different thicknesses such that a thicker one of the vibration and/or shock absorbing members absorbs up to a predetermined vibration and/or shock and a thinner one of the vibration and/or shock absorbing members absorbs vibration and/or shock exceeding the predetermined

vibration and/or shock as set forth in claims 10, 11, (13-17)/10, 22 and 31/22; a plurality of vibration and/or shock absorbing members in electronic apparatus mounted with a disk drive, having different vibration and/or shock absorbing characteristics such that a softer one of the vibration and/or shock absorbing members absorbs up to a predetermined vibration and/or shock and a harder one of the vibration and/or shock absorbing members absorbs vibration and/or shock exceeding the predetermined vibration and/or shock as set forth in claims 12, (13-17)/12 and 23; and an electrically insulative sheet provided between the disk unit and the vibration and/or shock absorbing members being slidable with respect to the disk unit as set forth in claims 24-29.

Response to Arguments

8. Applicant's arguments filed 29 June 2001 have been fully considered but they are not persuasive.

Applicant argues that "Hager et al. does not teach using such various types material simultaneously for the shock/vibration members". Hager et al. teaches element 64 is of relatively soft elastomeric material in col. 3, lines 66-67, and elements 68 are of material of two different hardness; and they are used simultaneously.

Applicant argues also that "the insulated sheet member claimed in present invention is entirely insulative and contains no electrical components mounted on wiring circuits." The PCB 22 of Genix et al. is itself entirely electrically insulative; and "no

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electrical components mounted on wiring circuits" is not shown in the related claims. It is the claims that define the claimed invention, and it is claims that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ 2d 1064.

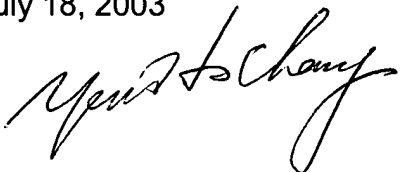
Correspondence

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (703) 306-5798. The examiner can normally be reached on 07:30-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFAX numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-8558.

Yean-Hsi Chang
Patent Examiner
Art Unit: 2835
July 18, 2003

A handwritten signature in cursive script, appearing to read 'Yean-Hsi Chang', is written below the typed name and date.